

SEP 07 2006

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CERTIFICATE OF FACSIMILE TRANSMISSION

*I hereby certify that this correspondence is being faxed to the United States Patent Office on **SEPTEMBER 7, 2006** to No. **571-273-8300** and addressed to Mail Stop Appeal Brief - Patents, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.*

Carole Giacomazzo
Carole Giacomazzo

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of Barker et al

Serial No. 09/839,179

Filed: April 19, 2001

For: **POWER CONSERVATION IN
COMMUNICATION SYSTEMS**

) Examiner: Eric Chang

) Art Unit: 2116

) Confirmation No. 1524

Docket No. RAL919990168US1 (IRA-10-5853)

TRANSMITTAL OF SUBSTITUTE APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

1. Transmitted herewith is the **SUBSTITUTE APPEAL BRIEF** in the above entitled application being filed in response to the Order Returning Undocketed Appeal to Examiner issued August 23, 2006 by the Board of Patent Appeals and Interferences.

Note: "The applicant shall, within 2 months from the date of the notice of appeal under § 1.191 in an application, reissue application, or patent under reexamination, or within the time allowed for response to the action appealed from, if such time is later, file a brief." 37 C.F.R. 1.192(a) [emphasis added].

2. **STATUS OF APPLICATION**

This application is on behalf of

- ☒ other than a small entity
☐ small entity

Verified statement:

- ☐ attached
☐ already filed

RAL919990168US1 (IRA-10-5853)

SEP 07 2006

3. **FEE FOR FILING APPEAL BRIEF**

Pursuant to 37 CFR 1.17(f) the fee for filing the Appeal Brief is:

- ☐ small entity \$ 250.00
☐ other than small entity \$ 500.00

Appeal Brief fee paid December 5, 2005

4. **EXTENSION OF TERM**

Note: The time periods set forth in 37 CFR 1.192(a) are subject to the provision of § 1.136 for patent application. 37 CFR 1.191(d). Also see Notice of November 5, 1985 (1060 O.G. 27).

The proceedings herein are for a patent application and the provisions of 27 CFR 1.136 apply.

(complete (a) or (b) as applicable)

- ☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136
 (fees: 37

CFR 1.17(a)-(d)) for the total number of months checked below:

	Extension Months	Fee for other than small entity	Fee for small entity
<input type="checkbox"/>	one month	\$120.00	\$60.00
<input type="checkbox"/>	two months	\$450.00	\$225.00
<input type="checkbox"/>	three months	\$1,020.00	\$510.00
<input type="checkbox"/>	four months	\$1,590.00	\$795.00
Fee:			

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

- ☐ An extension for _____ months has already been secured and the fee paid therefor of \$ _____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$ _____

or

- ☒ (b) Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. **TOTAL FEE DUE**

The total fee due is:

Appeal Brief fee now due \$ 0.00
Extension fee (if any) \$ 0.00

TOTAL FEE PAID DECEMBER 5, 2005

6. **FEE PAYMENT**

- ☐ Attached is a check in the sum of \$ _____
☐ Account No. 50-0563 charged in the amount of \$500.00 when original Appeal Brief was submitted on December 5, 2005

7. **FEE DEFICIENCY**

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum, six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to charge the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, 1065 O.G. 31-33.

- ☒ If any additional extension and/or fee is required, this is a request therefor and to charge Account No. 50-0563.

AND/OR

- ☒ If any additional fee for claims is required, charge Account No. 50-0563.

Respectfully submitted,

Date: SEPTEMBER 6, 2006


William N. Hogg, Reg. No. 20,156
CUSTOMER NO. 26675

Attachment

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SUBSTITUTE APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In accordance with the Order Returning Undocketed Appeal to Examiner issued on August 23, 2006 by Dale M. Shaw, Deputy Chief Appeal Administrator, Board of Patent Appeals and Interferences, Applicants are submitting a Substitute Appeal Brief. Specifically, paragraph III. Status of the Claims, has been revised as well as the attached Claim Appendix.

I. REAL PARTY IN INTEREST

The real party in interest in the above-entitled application is International Business Machines Corporation of Armonk, New York.

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II. RELATED APPEALS AND INTERFERENCES

The undersigned attorney is not aware of, and on information and belief, neither the appellants nor the assignee is aware of, any related appeals or interferences which would directly affect, or be directly affected by, or have a bearing on the Board's decision in this pending appeal.

III. STATUS OF THE CLAIMS

Claims 1-2 and 4-20 are the subject of this appeal. Specifically, claims 1, 11, 15 and 19 were amended prior to issuance of the final rejection, claim 3 was canceled in the amendment of June 4, 2006, and claims 2, 4-10, 12-14, 16-18 and 20 are presented as originally filed. The appealed claims are listed on the attached Claim Appendix.

IV. STATUS OF AMENDMENTS

All proposed amendments have been entered, so no issues as to entry of amendments are present.

V. SUMMARY OF THE INVENTION

The invention enables low power modes by insuring that the data terminal equipment at both ends of the communication exchange system (5 and 51, Figure 5, page 12, line 14 and page 13, line 3) are capable and eligible to enter a low power mode. It employs a standard auto-negotiation procedure adapted to execute the low power process (Figure 4, e.g. next page facility, page 6, line 16). In the auto-negotiation method of the invention, the adapter can be powered down as well as powered up.

In accordance with the invention, data terminal equipment devices at both ends of a communication system are provided for exchanging data signals with one another as to whether

each is capable of a low power mode. If both devices are capable of a low power mode, then subsequently in response to conditions of low usage selectively based on operator generated signals, time of day and/or low usage (page 1, line 14, page 8, lines 16-18), the devices exchange signals indicating eligibility. Eligibility to enter a low power mode is stored in the operator as binary bits (page 8, lines 19-20). If both devices are eligible for the low power mode, then both ends (5, 51) of the system enter a low power usage state and remain therein until signals are exchanged that permit data communication by resumption of normal power modes by both ends of the data exchange system.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-2 and 4-8 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,805,597 to Edem, hereinafter Edem.

Claims 9-20 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Edem in view of U.S. Patent 6,360,327 to Hobson, hereinafter Hobson.

VII. ARGUMENTS

The examiner states that Edem teaches 'determining eligibility of a system to enter a low power mode based on operator generated signals, time of day, or non-use of the system for a period of time, or a combination thereof' and cites col. 8 lines 44-67, and col. 9, lines 1-6 of Edem. It is respectfully submitted that Edem teaches neither the eligibility criteria nor components (claim 1) nor a protocol (claim 4) nor an exchange of signals (claim 5) for determining eligibility. All that Edem states is that '...it is desirable to provide a secondary operational mode which supports limited communications ... and has much lower power requirements than the normal full operational mode or modes.' Thus, there is nothing said about eligibility to enter the lower power mode being based on certain factors, and certainly not any

component or protocol or exchange of signals for such. It is to be remembered that there are two distinct functions taught and claimed. First there is the function of determining *capability* of both the transmitting and receiving ends to enter a low power mode, and then if, and only if, both ends are *capable* of entering a low power mode, then determining if both ends are *eligible* to enter a low power mode. This is not taught nor suggested by Edem.

Prior art is anticipatory only if every element of the claimed invention is disclosed in a single item of prior art in the form literally defined in the claim. Jamesbury Corp. v. Litton Indus. Products, 756 F.2d 1556, 225 USPQ 253 (Fed. Cir. 1985); Atlas Powder Co. v. du Pont, 750 F.2d 1569, 224 USPQ 409 (Fed. Cir. 1984); American Hospital Supply v. Travenol Labs, 745 F.2d 1, 223 USPQ 577 (Fed. Cir. 1984). A possibility or probability that features of the prior art contained in the disclosure of the prior art is not enough to establish anticipation. The same characteristics must be a "natural result flowing" from what is disclosed (Continental Can Co. v. Monsanto Co., 20 USPQ2d 1746, 1749 (Fed Cir. 1991)). Thus, for this reason, all of the claims presently in the application are allowable. Clearly then, claims 1, 4 and 5, the only independent claims in the application, are allowable over Edem.

Claims 2 and 6-8 are all dependent upon claims 1, 4 or 5, either directly or indirectly, and, for the same reasons, are believed to be allowable. Moreover, claims 6-8 all require selectively identifying and placing portions of a physical device in a low power mode. It is respectfully submitted that Edem *does not* show *selectively* reducing portions of various devices to low power mode. Thus, for these additional reasons, claims 6-8 are believed to be allowable.

Claims 9-20 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Edem in view of U. S. Patent 6,360,327 to Hobson, hereinafter Hobson. This rejection is not thought to be well taken.

First, claims 9-20 are dependent, directly or indirectly, on claims 1, 4 or 5, and Hobson does not cure the above noted defects of Edem. Thus, these claims are allowable for the same reasons. Moreover, Hobson is not dealing with communication systems, but rather with systems having peripheral devices, and which systems have only an "on" position or a "sleep" position. Applicants, on the other hand, are dealing with communication systems having at least two operating modes, in each of which modes data can be transferred. Moreover, Hobson requires a decoy register to switch between the "sleep" mode and the "on" mode. Thus, the operation of the Hobson system is quite different from that of the Applicants. There is just no teaching or suggestion that the components or operation of the Hobson system would apply to the Applicants' entirely different system, which operates in an entirely different manner.

In rejecting claims under 35 U.S.C. §103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1986). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroval, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an

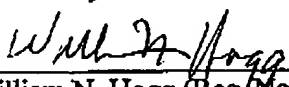
essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

SUMMARY

In view of the above, it is believed that each of the claims is distinguishable, one from the other, and over the prior art. Thus, the Board is respectfully requested to reverse the examiner, and allow all of the claims.

Respectfully submitted,

Date: SEPTEMBER 6, 2006



William N. Hogg (Reg. No. 20,156)
CUSTOMER NO. 26675

WNH:cg

Attachments

CLAIM APPENDIX

1. (Previously presented) A method of conserving power consumption in a communication system which includes components capable of selectively entering a low power operating mode, components capable of determining eligibility of the system to enter a low power operating mode based on operator generated signals, time of day, or non-use of the system for a period of time, or a combination thereof, and an auto-negotiation feature by exchanging messages indicative of a low power operating mode capability, using an auto-negotiation feature to interpret exchanged signals to verify that connected systems include the low power mode capability and eligibility to enter the low power mode, and transmitting a signal that a communications session is completed to cause connected systems to enter the low power mode.

2. (Original) The method of claim 1 wherein said auto-negotiation feature is a next-page facility.

3. (Canceled)

4. (Original) In a system utilizing a data communication device having a plurality of data exchange modes, each of said modes operating at different speeds, one of which speeds consumes less power than another, protocol means for compatibly coupling said data communication device to another data communication device for exchanging data therebetween, and selection means in said data communication device for a data exchange mode having a higher speed than the others, a method for switching to a least power consuming speed which consumes less power when in an idle mode, by exchanging data representative of said data

communication devices ability and eligibility to operate at the least power consuming speed, decoding via said protocol means said representative data, and changing to said least power consuming speed in response to another protocol signal.

5. (Original) In a local area network which includes Ethernet data terminal equipment capable of low power modes and employing auto-negotiation, a method for conserving power consumption during periods of low usage by using a next-page aspect of the auto-negotiation feature to communicate among terminal data equipment each equipment's capability to assume a low power mode, detecting periods of low network usage, verifying in response to detection of low network usage that each equipment is eligible to assume the low power mode by use of the auto-negotiation feature, and asserting signals to put each eligible equipment in a low power mode of operation.

6. (Original) The invention as defined in claim 1 wherein the components to put the system in low power mode are selectively detectable and control portions of a physical layer device in said system.

7. (Original) The invention as defined in claim 4 wherein the protocol to put the system in low power mode selectively detects and selectively controls portions of a physical layer device in said system.

8. (Original) The invention as defined in claim 5 wherein the method to put the system in low power mode selectively detects and selectively controls portions of a physical layer device in said system.

9. (Original) The invention as defined in claim 1 wherein the eligibility to enter the low power mode is stored in the system.

10. (Original) The invention as defined in claim 1 wherein the eligibility to enter the low power mode is stored in binary bits in the system.

11. (Previously presented) The invention as defined in claim 10 wherein the binary bits are located an organizationally unique identifier.

12. (Original) The invention as defined in claim 10 wherein the eligibility is stored in at least one bit.

13. (Original) The invention as defined in claim 4 wherein the eligibility to enter the least power speed is stored in the system.

14. (Original) The invention as defined in claim 4 wherein the eligibility to enter the least power speed is stored in binary bits in the system.

15. (Previously presented) The invention as defined in claim 14 wherein the binary bits are located an organizationally unique identifier.

16. (Original) The invention as defined in claim 14 wherein the eligibility is stored in at least one bit.

17. (Original) The invention as defined in claim 5 wherein the eligibility to enter the low power mode is stored in the system.

18. (Original) The invention as defined in claim 5 wherein the eligibility to enter the low power mode is stored in binary bits in the system.

19. (Previously presented) The invention as defined in claim 18 wherein the binary bits are located in an organizationally unique identifier.

20. (Original) The invention as defined in claim 18 wherein the eligibility is stored in at least one bit.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None known to undersigned attorney.